

REMARKS

By this amendment, claim 14 has been cancelled, claims 11, 15 and 17 have been amended, and claims 20-28 have been added. Thus, claims 11-13, 15-28 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

On pages 2-5 of the Office Action, claims 11-14 and 17-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann et al. (U.S. 4,398,775) in view of Lindrose et al. (U.S. 6,113,277); and claims 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann et al. in view of Lindrose et al. and further in view of Albrecht et al. (U.S. 5,768,060). These rejections are respectfully traversed and are believed clearly inapplicable to the claims as now presented, for the following reasons.

Claim 14 has been cancelled, and each of the independent claims 11, 17 and 19 has been amended to further specify that an inner sleeve 260 is provided and supports the first and second inner rings 301, 302, and that an outer sleeve 250 is provided and supports the first and second outer rings 303, 304.

Near the bottom of page 3 of the Office Action, the Examiner stated that "the outer housing 36 of Hofmann corresponds to the claimed outer sleeve, the shaft 1 corresponds to the claimed inner sleeve." However, this assertion is traversed, because the shaft 1 of Hofmann (as illustrated in Figs. 1-3) is clearly not an inner sleeve as claimed. That is, a sleeve is well known to be a tubular part, as shown in the attached definitions of "sleeve" taken from the Merriam-Webster online Dictionary and the dictionary.com dictionary. Accordingly, the invention as specified in each of the independent claims 11, 17 and 19 is clearly not disclosed or suggested by the Hofmann et al. patent. Furthermore, the Lindrose patent provides no teaching or suggestion that would have obviated this shortcoming of the Hofmann et al. patent.

Furthermore, in the paragraph spanning pages 4 and 5 of the Office Action, the Examiner re-asserted his position that "the disclosure of Hofmann fully anticipates the claim language. While Applicant has couched the spacing and staggered relationship of the balls in mathematical terms, the general description of Hofmann with respect to "arrays" fully anticipates a regular and

unequal spacing of the pockets." The claimed arrangement to which the Examiner refers, and which the Examiner asserts is fully anticipated by the disclosure of Hofmann, is the recitation in each of the independent claims 11, 17 and 19 that "said first and second angular grooves, when viewed together along the direction of said bearing center axis, are circumferentially angularly spaced apart by angular intervals of $360/(2N)$ degrees, and such that first radial line segments respectively connecting said center axis of said first retainer with centers of said first grooves do not overlap with second radial line segments respectively connecting said center axis of said second retainer with centers of said second grooves."

This recitation as presented in the independent claims requires, not only that the first grooves are angularly offset relative to the second grooves, but also that the angular offset is such that, when viewed along the direction of the bearing center axis, the angular intervals between circumferentially adjacent grooves is the same (i.e. 360 divided by (2n)). The Hofmann reference, as indicated by the Examiner, states that "one set of balls and group of teeth is angularly offset from the other set of balls and group of teeth". The Examiner asserts that Hofmann discloses that a reading of the Hofmann specification would cause a person of ordinary skill in the art to know "that an array of pockets in a staggered manner fully encompasses the $360/N$ relationship as claimed." It is submitted, however, that, while Hofmann might disclose that the two sets of grooves are disposed in a staggered relationship, it does not disclose that, when viewed axially from above, the grooves containing both sets of balls 4 and 5 taken together are equally angularly spaced apart, as required by the above-discussed claim language. In other words, the disclosure of a staggered arrangement is not a disclosure that the first grooves and second grooves are staggered so that, when viewed from above, all circumferentially adjacent grooves are equally angularly spaced apart.

Thus, for the above reasons, it is submitted that the Hofmann et al. and Lindrose patents do not, whether taking individually or in combination, disclose or suggest all of the features of the independent claims 11, 17 and 19. Accordingly, it is submitted that a person having ordinary skill in the art would not have been motivated to modify the Hofmann patent or to make any

combination of the references of record in such a manner as to result in or otherwise render obvious the present invention as now claimed in the independent claims 11, 17 and 19. As such, it is respectfully submitted that claims 11, 17 and 19, as well as the claims which depend therefrom, are clearly allowable over the prior art of record.

The Examiner's attention is next directed to the dependent claims which set forth additional features of the present invention and further define the invention over the prior art.

New dependent claim 20, 23 and 26 specify that the inner sleeve has a hole formed axially therethrough, as illustrated in Fig. 3. Claims 21, 24 and 27 specify that the first and second inner rings have the same shape, and the first and second outer rings have the same shape. Claims 22, 25 and 28 specify that the first and second inner rings are fixed on the inner sleeve, and that the first and second outer rings are fixed on the outer sleeve.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Hideki KUWAJIMA

By: Charles R. Watts
Charles R. Watts
Registration No. 33,142
Attorney for Applicant

CRW/asd
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
October 5, 2006

Dictionary.com Unabridged (v 1.0.1) - Cite This Source

sleeve [sleev] Pronunciation Key - Show IPA Pronunciation *noun, verb, sleeved, sleeve-ing.*

-noun

1. the part of a garment that covers the arm, varying in form and length but commonly tubular.
2. an envelope, usually of paper, for protecting a phonograph record.
3. *Machinery.* a tubular piece, as of metal, fitting over a rod or the like.

-verb (used with object)

4. to furnish with sleeves.
5. *Machinery.* to fit with a sleeve; join or fasten by means of a sleeve.

-Idioms

6. laugh up or in one's sleeve, to be secretly amused or contemptuous; laugh inwardly: *to laugh up one's sleeve at someone's affectations.*
7. have something up one's sleeve, to have a secret plan, scheme, opinion, or the like: *I could tell by her sly look that she had something up her sleeve.*

[Origin: bef. 950; ME *sleve*, OE *slefe* (Anglian), *slefe*; akin to D *sloof* apron]

-Related forms

sleevelike, *adjective*

Dictionary.com Unabridged (v 1.0.1)

Based on the Random House Unabridged Dictionary, © Random House, Inc. 2006.

sleeve

5 entries found for **sleeve**.
To select an entry, click on it.

sleeve
cap sleeve
dolman sleeve
flutter sleeve
raglan sleeve

[Go](#)

Main Entry: **sleeve** 

Pronunciation: 's1Ev

Function: *noun*

Etymology: Middle English *sleve*, from Old English *slIefe*; perhaps akin to Old English *slEfian* to slip (clothes) on, *slupan* to slip, Old High German *sliofan*, Latin *lubricus* slippery

1 **a** : a part of a garment covering an arm **b** : **SLEEVELET**
2 **a** : a tubular part (as a hollow axle or a bushing) designed to fit over another part **b** : an open-ended flat or tubular packaging or cover; *especially* : **JACKET** 3c(2)
- **sleeved**  /'s1Evd/ *adjective*
- **sleeve-less**  /'s1Ev-l&s/ *adjective*
- **on one's sleeve** : in an honest and open manner -- used with *wear* *<wears his emotions on his sleeve>*
- **up one's sleeve** : held secretly in reserve *<has a few tricks up her sleeve>*